

REMARKS

Claims 1, 2, 3, 5, 7 and 11 have been amended in order to more particularly point out, and distinctly claim the subject matter to which the applicants regard as their invention. No new matter has been added.

Claims 1-20 are pending in the application and have been rejected.

Claim Rejections under 35 USC §102

Claims 1-20 are rejected under 35 USC §102(e) as anticipated by Maes et al. (U.S. Patent No. 6,016,476).

The present invention as described in the first embodiment shown in Figure 4 is a method of settling a transaction which begins in step 1 by connecting the user terminal (10) and the authorization server (22) of the service center (20). In step 2, the authorization center (22) authenticates the IC card (4). In step 3, the identity of the user is verified by the authorization center (22) through the entry of a personal identification number (PIN). In step 4, the user enters the PIN. In step 5, IC credit card or IC debit card information is transmitted to the settlement server (41) of the card company/bank (40). In step 6, the settlement server generates a one-time password usable for only one transaction and useable for a limited period of time. In step 7, the user then inputs the one-time password as displayed on the mobile telephone (1) into the cat terminal or debit terminal (30) of the business establishment. In step 8, the cat terminal or debit terminal (30) transmits the one-time password to the settlement server (41). Finally, in step 9, the settlement server (41) transfers a transaction satisfying the settlement of the transaction.

The present invention includes “A card settlement method” and “A card settlement system”, each having three aspects. The first aspect is defined by claims 1 and 5, the second aspect is defined by claims 2 and 7, and the third aspect is defined by claims 3 and 11.

The features of the first aspect is the temporary password which is valid for only one transaction and valid for only a limited period of time. Claims 1 and 5 have been amended to indicate that the temporary password is valid for only one transaction and valid for only a limited period of time. This feature finds support on page 16, lines 30-34 of the specification.

The feature of the second aspect is to load a customer’s IC card and a business establishment IC card provided in the business establishment in a mobile information terminal (a mobile phone) which has an IC card read/write function and a wireless communication function for the settlement of a transaction in a business establishment, and then the authorization server decides on legitimacy of these cards from the information stored in both IC cards.

Namely, the feature of the second aspect is that the settlement of a transaction in a business establishment is carried out through the settlement network after the authorization of the mobile information terminal by the business establishment IC card and the authorization of the customer by the customer’s IC card.

The feature of the third aspect is that both a mobile information terminal (a mobile phone) which has an IC card read/write function and a wireless communication function and a settlement terminal on a business establishment side are equipped with a short distance wireless communication function and the mobile information terminal is wirelessly connected to the settlement terminal.

Namely, the feature of the third aspect is that the settlement of a transaction in a business establishment is carried out directly by the customer’s mobile information terminal.

Maes et al. describes a portable client PDA having I/O capability to read a smart card. The PDA also has a radio frequency modem for communications. The PDA can operate in a client/server mode in which a temporary digital certificate is periodically downloaded to the PDA. This temporary digital certificate is used to access information stored in PDA and to write such information to the Universal smart card. Once the information is written to the smart card a transaction may take place.

Effect of the Present Invention

- 1) The customer can use the settlement terminal with the temporary password by using the mobile information terminal and the service center.
- 2) The authorization of the settlement terminal is carried out by the business establishment IC card and the authorization of the customer is carried out by the customer's IC card.
- 3) The transaction is settled by the mobile information terminal using the settlement terminal having a short distance wireless communication interface (RF/IR etc.).
- 4) The present invention includes a settlement system formation described in the specification as fourth to sixth aspects which can realize transaction, authorization and settlement.

Reason for the effects realized by the Present Invention

- 1) As a whole, the present invention provides not a function of a mobile information terminal such as a PDA, but provides a system which can realize a transaction, authorization and settlement using a mobile information terminal and an existing infrastructure.
- 2) An authorization of the customer using the IC card is carried out not by the conventional settlement transaction network but by another network using a temporary password and a business establishment IC card, although the conventional settlement system is used in the final settlement.

- 3) The third aspect of the present invention utilizes a settlement terminal having a short distance wireless communication function and the transaction, authorization and settlement are directly carried out. (Maes et al., U.S. 6,016,476).

The Maes reference cited by the Examiner settles a credit/debit transaction by using a PDA having a function of many types of card capability (magnetic card, IC card) and a function of biometric recognition, and various interfaces (RF, IR, or DTMF). Maes discloses mainly a hardware structure of the PDA and functions the PDQ and fails to disclose the system structure for transaction. The system configurations of the present invention and Maes are quite different.

Therefore, the independent claims patentably distinguish over the prior art relied upon by reciting, as exemplified by claim 1,

“A card settlement method using a mobile information terminal provided with an IC card read/write function and a wireless communication function for the settlement of a transaction in a business establishment, comprising: a step of having a customer using a business establishment wirelessly connect to an authorization server through a network by the mobile information terminal, a step of having the customer load his or her IC card in the mobile information terminal, read the information stored in this IC card, and send it to the authorization server, a step of having the authorization server decide on the authorization of the current transaction from authentication information stored in the IC card and proving the legitimacy of the card, settlement information containing at least a card number, and personal identification information input from the customer and proving the legitimacy of the customer, a step of sending a temporary password issued from a settlement server to the mobile information terminal for display after the authorization of the current transaction, a step of inputting the temporary password and the current transaction information from a business establishment side settlement terminal and sending it to the settlement server, and a step of having the settlement server settle the transaction with the password and the transaction information satisfying the settlement conditions, wherein the temporary password is valid for only one transaction and valid for only a limited period of time.” (Emphasis Added)

Therefore, withdrawal of the rejection of Claims 1-20 under 35 USC §102(e) as anticipated by Maes et al. (U.S. Patent No. 6,016,476) is respectfully requested.

Conclusion

In view of the aforementioned amendments and accompanying remarks, the claims, as amended, are in condition for allowance, which action, at an early date, is requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

ARMSTRONG, KRATZ, QUINTOS,
HANSON & BROOKS, LLP



George N. Stevens
Attorney for Applicant
Reg. No. 36,938

GNS/nrp
Atty. Docket No. **010369**
Suite 1000
1725 K Street, N.W.
Washington, D.C. 20006
(202) 659-2930



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